Benefit of a Second Opinion for Lung Cancer

No Recurrent Disease, but Infection

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For cancer patients being faced with a dismal prognosis whether initially or during follow-up is frequently reason for a second opinion.[1] We present a remarkable example of the benefits that a second opinion may provide.

CASE REPORT

A 46-year old woman received chemoradiotherapy with curative intent (first cycle cisplatinum 80 mg/m^2 and pemetrexed 500 mg/m^2; second and third cycles cisplatinum 80 mg/m^2 and etoposide 100 mg/m^2 on days 1, 2, and 3, concurrent with thoracic radiotherapy 33 ×2 Gy and prophylactic cranial irradiation as part of the Nederlandse Vereniging van Artsen voor Longziekten en Tuberculose (NVALT)-11 trial) for stage IIIB adenocarcinoma of the right upper lobe. After 9 months, she presented with dyspnoea, wheezing, and severe nonproductive cough. Positron emission tomography and computed tomography scanning showed a cavitating lesion in the irradiated area in the right upper lobe and multiple fluorodeoxyglucose-avid lesions in the right lung. These images were regarded as recurrent non–small-cell lung carcinoma, accompanied by an infectious component. For the latter, ciprofloxacin was given. The presumed diagnosis of tumor recurrence and the fatal prognosis were discussed with the patient and her husband. The step to seek a second opinion was initiated by the patient.

All data were reviewed and the computed tomography scan repeated. The scan showed multiple nodules in both lungs, cavitation in the irradiated tumor area, and an increase of fibrosis and stricture of the upper lobe bronchus (Fig. 1). The positron emission tomography findings could be explained by an active infection in and around the cavitation without proven signs of tumor recurrence. Despite repeated antibiotic treatment, the situation deteriorated with continuous cough, shortness of breath, weight loss, and anaemia. Laboratory findings showed a C-reactive protein of 257 mg/l and a normal white blood cell count (9.6 × 10^9/l). To drain the cavity, an open-window thoracostomy was performed and

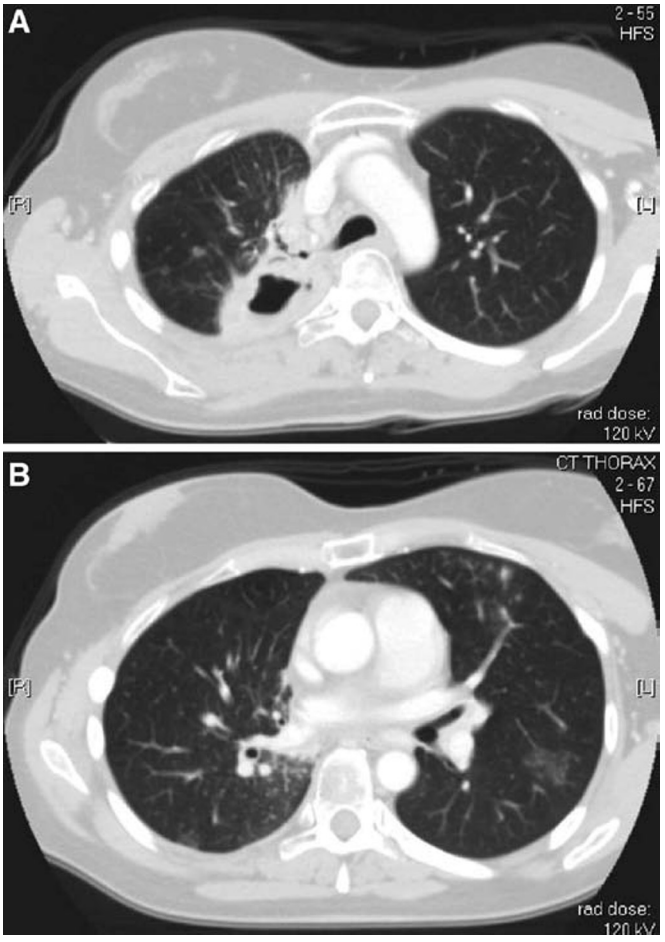

FIGURE 1. Computed tomography scan at time of presentation showing cavitation and multiple lesions.

necrotic tissue was removed (Fig. 2). *Aspergillus fumigatus* was isolated in the pathological specimen and the patient received postoperative antimicrobial and antifungal therapy. The patient's cough disappeared immediately and her condition improved considerably. Three months after thoracostomy, the patient presented with bleeding from the cavity. After gauze tamponade, the serratus anterior muscle was transposited into the cavity (Fig. 3).The postoperative course was uneventful and 15 months after her initial visit for a

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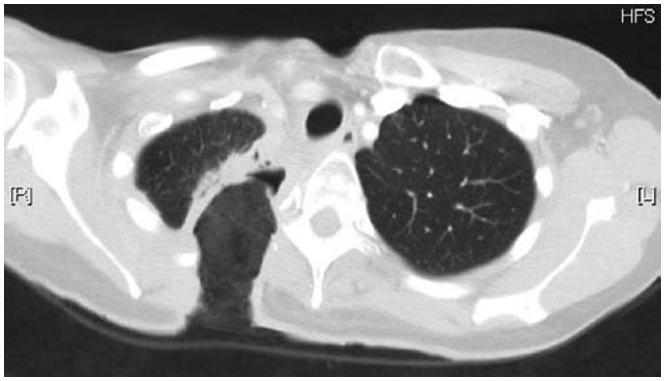

FIGURE 2. Computed tomography scan after open-window thoracostomy with gauzes in situ.

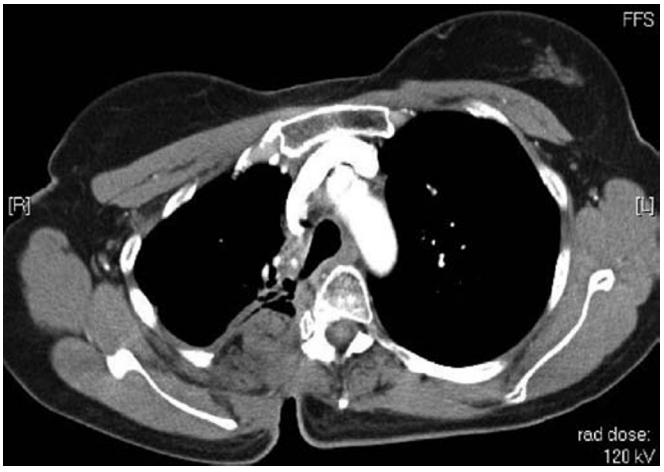

FIGURE 3. Computed tomography scan after muscle plasty of the serratus anterior muscle in the cavity.

second opinion, there still are no signs of infection or recurrent tumor. The patient resumed work.

COMMENT

High-dose radiotherapy results in damage of the circulation and may cause necrosis within the irradiated area.[2,3] Defence against infection will be limited and radiological changes in this area might therefore be because of the effects of infection. Differential diagnosis between infection and tumor progression is extremely difficult, also because uptake of 18 fluorodeoxyglucose is present in both situations. Treatment of infected necrosis in an irradiated area is difficult.[4] Surgical resection of the complete area is risky because of the scarring and patients usually present in a poor general condition. A less hazardous procedure to open the cavity and evacuate the necrotic and infected tissue is preferable.[5] After initial improvement, muscle flaps can be used to fill the cavity with healthy tissue.

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